

**UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN**

BAD RIVER BAND OF THE
LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS
OF THE BAD RIVER RESERVATION,

Case No. 3:19-cv-602

Plaintiff,

The Honorable William M. Conley

v.

ENBRIDGE INC.;
ENBRIDGE ENERGY PARTNERS, L.P.;
ENBRIDGE ENERGY COMPANY, INC.; and
ENBRIDGE ENERGY, L.P.,

Defendants.

FIRST AMENDED COMPLAINT

The Bad River Band of the Lake Superior Tribe of Chippewa Indians of the Bad River Reservation (the “Band”), a federally recognized Indian Tribe, by and through counsel, states and alleges as follows:

INTRODUCTION

1. The Band enjoys sovereign control over the approximately 125,000-acre Bad River Reservation. The Reservation was established by treaty with the United States in 1854 and is located on the south shore of western Lake Superior and the northeast shore of Madeline Island within the exterior boundaries of the State of Wisconsin.

2. Defendants Enbridge Inc., Enbridge Energy Partners, L.P., Enbridge Energy Company, Inc., and Enbridge Energy, L.P. (collectively, “Enbridge”) operate a pipeline transporting up to twenty-three million gallons of crude oil and natural gas liquids per day across the Reservation. Since 2013, they have done so despite (1) the expiration of easements along the

Reservation right-of-way and an express legal obligation to remove the pipeline from those parcels; (2) the Band's insistence that the flow of oil cease; and (3) the fact that the pipeline's placement near the migrating channel of the Bad River has given rise to circumstances that have been demonstrated to lead to environmental catastrophe.

3. The Band and its members have federal treaty rights to the lands, waters, and natural resources within the Reservation and ceded areas. They have protected these resources for centuries.

4. Under the Band's continuing stewardship, the wetlands of the Bad River Reservation, and the densely interlaced network of rivers and streams that feed and replenish them, are recognized by international treaty as among the most sensitive freshwater estuarine ecosystems on Earth, a thriving refuge for innumerable flora and fauna including many threatened and endangered species. They support critical treaty fisheries and contain some of the last remaining wild rice beds on the Great Lakes, which Band members continue to protect and harvest pursuant to federally protected treaty rights and using the methods developed by their ancestors centuries ago.

5. Enbridge owns and operates a network of petroleum pipelines in the United States and Canada. One of them – a sixty-six-year-old steel pipeline known as "Line 5" – begins at a terminal in Superior, Wisconsin, traverses northern Wisconsin and the Upper Peninsula of Michigan, crosses under the Straits of Mackinac, and then bisects the Lower Peninsula of Michigan before crossing the St. Clair River and the international boundary line and reaching a terminal in Sarnia, Ontario, Canada.

6. Line 5 is principally a thoroughfare for Canadian oil. On a daily basis, it transports up to 540,000 barrels (approximately twenty-three million gallons) of crude oil and natural gas

liquids that originate in Alberta, Canada (where they are transported by other Enbridge pipelines until they reach Superior), the majority of which are ultimately refined in Ontario for use outside the United States.

7. Roughly seventy-five miles east of Superior, Line 5 traverses the Bad River Reservation for over twelve miles along a heavily forested corridor that includes numerous river and stream crossings and large swaths of wetlands.

8. Enbridge no longer has the legal right to operate Line 5 across the full reach of the Reservation corridor. Line 5 was installed on the Reservation in 1953 pursuant to easements issued by the Bureau of Indian Affairs for the tribal and individual lands that lie along its path. These easements were renewed in the 1970s and again in 1993.

9. Fifteen of the easements expired on June 2, 2013, as their renewal was expressly “limited as to tenure for a period not to exceed 20 (Twenty) years ... ending on June 2, 2013[.]” In those same easements, Enbridge expressly promised that the company would “remove all materials, equipment and associated installations within six months of termination, and ... restore the land to its prior condition.” Rather than doing so, or seeking the Band’s consent to a renewal of the easements prior to their expiration, Enbridge has continued to operate the pipeline as if it has an indefinite entitlement to do so. This constitutes an unlawful possession of the subject lands, and an intentional, ongoing trespass upon them.

10. Federal regulations prohibit renewal of expired right-of-way easements on Indian lands. 25 C.F.R. § 169.202(a)(4). Enbridge would accordingly need to obtain approvals for new easements from the Bureau of Indian Affairs, as well as approval from the Band under Band law, to lawfully operate its pipeline on the parcels with expired easements.

11. Federal law provides that the Bureau of Indian Affairs may not approve new easements across tribal lands “without the consent of the proper tribal officials.” 25 U.S.C. § 324. *See also* 25 C.F.R. § 169.107(a) (“For a right-of-way across tribal land, the applicant must obtain tribal consent[.]”). The Band, which has an ownership interest in eleven of the parcels with expired easements, issued a formal Resolution on January 4, 2017, in which it declared that in light of the grave threat posed by the pipeline to the Band’s way of life and the Reservation ecosystem, it would not consent to the renewal of the easements for any parcels in which it has such an interest.

12. The Band and Enbridge then entered into mediation to discuss the removal of the pipeline from the Reservation. The discussions were respectful, but the Band and Enbridge were unable to reach consensus regarding the timing of cessation of pipeline operations.

13. While the risk of a rupture or leak of Line 5 is significant along the entire Reservation corridor, the circumstances just east of the location where the pipeline currently passes beneath the Bad River portend a looming disaster. Here, the Bad River is carving away the banks and soils that conceal and protect the pipeline, such that it will soon be exposed at this location to the full force of the river and to the substantial volume of fallen trees, logs, ice flows, and other material that it conveys.

14. Specifically, a meander in the Bad River has undergone substantial channel migration (*i.e.*, changes in the river’s path across the land) as a result of bank erosion accelerated by the river’s frequent high flows and its local geomorphology. Line 5 was installed in 1953. Ten years later, in 1963, the north bank of the meander bend was approximately 320 feet from the pipeline. In 2015, that distance had decreased to approximately eighty feet, and today it is only twenty-eight feet. The average encroachment of five feet per year has increased in recent years: from 2015-2019 the yearly bank loss has been approximately thirteen feet on average. Based on

these historic observations, it is anticipated that the Bad River will reach the pipeline within the next two to five years, and conceivably much sooner depending on factors including river hydrology and hydraulics and the properties and composition of the soils between the river and the pipeline.

15. When the migrating channel of the Bad River reaches the buried pipeline, the river will erode and remove the surrounding soils (a process known as scouring) until the pipeline is exposed. When this occurs, portions of the pipeline will no longer be supported by underlying or surrounding soils for the length of the exposure, and the unsupported span will lengthen as the river continues to carry away the soils.

16. Of similar concern is the scouring taking place as the Bad River overflows its banks during periods of flooding and channels of water flow across the meander neck, again eroding the soil that currently protects the pipeline. The Bad River possesses the potential to form a new channel across the meander neck and to flow directly across the exposed pipeline in its new configuration. The river has formed new channels at other meander locations on the Reservation, both upstream and downstream of the Line 5 crossing.

17. Whether as a result of bank erosion or channelization (or both), the exposure of the pipeline will subject it to an array of stresses it was never designed to withstand, including but not limited to (1) the enormous force of the moving water; (2) the oscillation of the unsupported span of pipeline resulting from the river currents; (3) the pipeline's own considerable weight, including its load of oil, unsupported by surrounding soil; and (4) tremendous and repeated impacts as fallen trees, ice flows, and other objects collide with the exposed pipeline.

18. Pipelines are well known to rupture under these circumstances. Dozens of documented failures have occurred. In 2013, the federal Pipeline and Hazardous Materials Safety

Administration (“PHMSA”) raised alarm about the dangers of pipelines exposed by rivers in a formal report to Congress, and has repeatedly (including as recently as 2019) promulgated warnings to pipeline operators that buried pipelines exposed as a result of channel migration, flooding, and river scour are in danger of rupture as a result of stresses they were not designed to withstand.

19. The foregoing circumstances, discussed in more detail below, represent an existential threat to the Band, its Reservation resources, and its way of life. They pose a dire threat to the treaty-protected rights of the Band and its members in the lands and waters of the Reservation. Accordingly, in addition to constituting a trespass and unlawful possession of the Band’s lands, Enbridge’s refusal to halt the flow of oil across the Reservation constitutes a grave public nuisance.

20. This suit seeks a declaratory judgment that Enbridge’s continued use of Line 5 across the Bad River Reservation constitutes a public nuisance and a trespass, and an order of ejectment and an injunction requiring Enbridge to cease the operation of Line 5 on the Reservation and to remove it safely from the Reservation.

JURISDICTION AND VENUE

21. This Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1362 because the action arises under the Constitution, treaties, and laws of the United States, and is brought by an Indian band with a governing body duly recognized by the Secretary of the Interior.

22. This Court has supplemental jurisdiction over any claims arising under Wisconsin law pursuant to 28 U.S.C. § 1367.

23. The allegations of this Complaint give rise to an actual controversy within the meaning of 28 U.S.C. §§ 2201 and 2202.

24. Venue is proper in this district pursuant to 28 U.S.C. § 1391(b) because the Defendant conducts business in this district, the actions and omissions giving rise to the claims occurred and are occurring in this district, and the property that is the subject of this action is situated in this district.

PLAINTIFF

25. Plaintiff Bad River Band of the Lake Superior Tribe of Chippewa Indians of the Bad River Reservation (the “Band”) is a federally recognized Indian tribe that enjoys government-to-government relations with the United States. It is organized under the Indian Reorganization Act of 1934, 25 U.S.C. § 5123, and is formally recognized by the Secretary of the Interior as enjoying the privileges and immunities that accompany tribal status. *See* Indian Entities Recognized by and Eligible to Receive Services from the United States Bureau of Indian Affairs, 84 Fed. Reg. 1,200 (Feb. 1, 2019).

26. The Band exercises sovereign powers of self-governance and jurisdiction over its members and its Reservation.

27. The Band is party to three treaties with the United States: Treaty with the Chippewa (July 29, 1837), 7 Stat. 536; Treaty of La Pointe (October 4, 1842), 7 Stat. 591; and Treaty with the Chippewa (September 30, 1854), 10 Stat. 1109. These treaties remain in effect today.

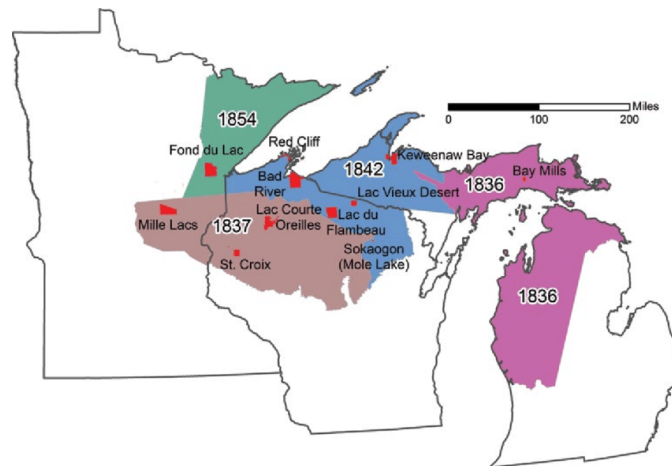
28. The Band brings this action in its own capacity and as *parens patriae* on behalf of its members.

DEFENDANTS

29. Defendant Enbridge Inc. is an energy delivery company based in Calgary, Alberta, Canada. Defendants Enbridge Energy Partners, L.P. (known prior to 2001 as the Lakehead Pipeline Company), Enbridge Energy Company, Inc., and Enbridge Energy, L.P., are American affiliates of Enbridge Inc., through which the latter operates in the United States. Upon information and belief, Enbridge Energy Partners, L.P., Enbridge Energy Company, Inc., and Enbridge Energy, L.P., are organized under the laws of the State of Delaware and based in the State of Texas. Defendants are referred to collectively as Enbridge.

THE BAD RIVER RESERVATION

30. Through a series of treaties with the United States between 1836 and 1854, the Ojibwe Bands of northern Michigan, Wisconsin, and eastern Minnesota ceded vast tracts of land to the federal government, with small reservations (shown in red in the map below) retained from the cessions and set aside for their exclusive use.



Upper Great Lakes Indian Land Cessions and Reservations

31. In those same treaties, the Indians reserved the rights to fish, hunt, and gather both within their reservations and in the ceded lands and waters, which rights were necessary to their survival and endure to this day.

32. The Bad River Reservation was established by the 1854 Treaty with the Chippewa. *See* 10 Stat. 1109, art. 2 (2d). It encompasses approximately 125,000 acres along the south shore of Lake Superior within the exterior boundaries of the State of Wisconsin. The Reservation also includes an additional “two hundred acres on the northern extremity of Madeline Island, for a fishing ground.” *Id.* The Band possesses inherent sovereignty and exercises the powers of self-government over the Bad River Reservation.



33. The United States holds various lands within the Bad River Reservation, including the Band’s interests in the parcels with expired easements, in trust for the Band pursuant to federal law, including the 1837, 1842, and 1854 Treaties, the Indian Reorganization Act of 1934, 25 U.S.C. § 5108, and the Indian Land Consolidation Act of 1983, 25 U.S.C. § 2209. Such lands are subject to federal restrictions against alienation, 25 U.S.C. § 177; 25 C.F.R. § 152.22(b), and are generally subject to tribal and federal laws and regulation, 25 C.F.R. § 1.4. *See Alaska v. Native Village of Venetie Tribal Gov’t*, 522 U.S. 520, 527 n.1 (1998). Rights-of-way over tribal trust lands may not be granted without the consent of the tribal government, and such rights-of-way are subject to tribal and federal law. 25 U.S.C. § 324; 25 C.F.R. §§ 169.107(a), 169.9.

34. At the time of its establishment in 1854, the Reservation remained largely wilderness and vast wetlands interlaced with a network of rivers and streams, including the Kakagon River, the White River, and the Bad River, all flowing northerly across the clay deposits of the Reservation and into Lake Superior. Band members and their forebears had stewarded these lands and waters for centuries.

35. Before joining Lake Superior, those rivers give way to deltas forming complex freshwater estuaries (today known as the Bad River and Kakagon Sloughs), home to countless species of mammals, reptiles, fish, waterfowl, and migratory birds, as well as medicinal and other edible plants, including wild rice, a rich source of both protein and carbohydrates and hence a primary basis of the Band's sustenance.

36. Aside from the small village of Odanah (the historic cultural and economic center for the Band) and other modest development, principally along Highway 2, the Reservation today remains largely remote wilderness, with numerous rivers, streams, and wetlands of excellent water quality. It is home to an extraordinary abundance of plants, fish, birds, reptiles, and mammals. In fact, the Reservation harbors at least forty-four species of flora and fauna that are federally and/or state-recognized as threatened or endangered, including the federally endangered Piping Plover and the federally threatened Canada Lynx.



Piping Plover



Canada Lynx

37. The wild rice beds within the Reservation stand as the largest remaining beds on the Great Lakes and among the largest and healthiest left in the world. Band members continue to protect and harvest the rice beds, using methods handed down from one generation to the next for centuries:



Seth Eastman, *Chippewa Women Gathering Wild Rice*, c 1857



Ojibwe men harvesting wild rice, Upper Great Lakes, c 1920s



Bad River members harvesting wild rice, c 2012

38. In promulgating the Band's wild rice harvesting regulations, the Tribal Council has declared:

That the lands now comprising the Bad River Reservation were traditional hunting, fishing, and gathering grounds for the ancestors of the Tribe; that these lands were selected as a Reservation because of their wealth of fish, game, and wild rice; that wild rice has been a nutritional staple for members of the Tribe for generations beyond memory; that wild rice continues to provide a substantial portion of the protein and other nutritional needs of the Tribe's members; that the annual harvest of wild rice is a traditional event of long-standing cultural importance; that high unemployment and cash-poor local economy indicate that wild rice will remain critical as a food source for the Tribe's members; that one predictable source of cash income for the Tribe's members is the sale of wild rice to non-residents of the reservation; and that effective regulation of both member and non-member harvesting of wild rice is essential for the preservation of wild rice in amounts sufficient to supply the economic, nutritional, and cultural needs of the Tribe's members.¹

¹ Bad River Tribal Court Code § 303.1 (Findings), <http://www.badriver-nsn.gov/legislative/tribal-court-code>.



Band children learning about wild rice from Band elders

39. Band members likewise continue to exercise their treaty-protected rights to fish, trap, hunt, and gather within the Reservation and throughout the ceded territories. Band members hunt game including white-tailed deer, elk, ducks, and grouse on and near the Reservation. And in addition to wild rice, Band members gather edible plants such as cranberries, blackberries, strawberries, and leeks, as well as numerous medicinal plants including Labrador tea, sage, and cedar. All of these activities are protected under the treaties of 1837, 1842, and 1854, as are Band members' rights of access to these resources by both land and water.



Band members learning historic canoe poling methods on the Bad River



Band members boating on the Bad River

40. Band subsistence fishers use methods developed by their ancestors, employing spears, nets, and small boats on waters including Lake Superior, the Bad and Kakagon Rivers, and other inland lakes and streams. The key species they harvest include walleye, bass, lake sturgeon, salmon, lake herring, perch, lake trout, and whitefish. Band members also engage in commercial

fishing, primarily for whitefish and lake trout, using nets and larger boats on Lake Superior under treaty-based harvest allocation agreements with the State of Wisconsin and the Red Cliff Band of Lake Superior Chippewa. All of these fishing activities are protected by the 1837, 1842, and 1854 treaties.



Band members using historic (spear and net) subsistence methods on the Bad River

41. The Band carefully regulates its members' treaty fishing activities in the interests of environmental and cultural preservation. In promulgating such regulations, the Tribal Council has declared as follows:

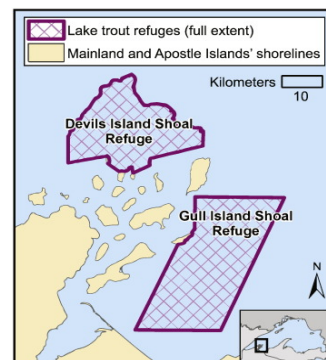
The Tribal Council finds that the fisheries of the Bad River Tribe, both on the reservation and in Lake Superior, constitute important communal resources possessed by the Tribe as a whole. The Bad River Tribe has a long history of lake and river fishing and a long history of respect for the fish its members pursue. Both before and after the treaty era, Bad River members fished for subsistence, consuming some of the fish they caught, and selling, on a subsistence level, others. Tribal members have also fished for market on a commercial scale, and the time is not so far past when commercial fishing wharves lined the Bad River at Old Odanah, home port to member-owned fishing steamers. The Tribe's interests in the fish of the reservation and of the Lake continue to today. Today's interest is to see that the fish populations survive for harvest tomorrow, and into generations yet unseen. The Tribe's interest is also to provide a source of subsistence – for home use consumption and also for small scale market activity – to its members. Finally, the Tribe's interest is to provide a stable, protected source for the livelihood of those of its members who pursue the Lake's fish on a commercial scale.²

² *Id.* § 325.1.

42. The Band is highly active in fisheries restoration in furtherance of these same values and objectives. The Bad River fish hatchery (operated by the Band since 1968 in conjunction with the U.S. Fish & Wildlife Service (“USFWS”)) raises primarily walleye and perch. Because many of the walleye raised in the hatchery and released into inland Reservation waters each year make their way to Lake Superior, the hatchery has played a vital role in the recovery of walleye populations on a regional scale. The Band’s lamprey control programs (undertaken in cooperation with the USFWS) have been instrumental in reversing the historic decline of lake sturgeon, whitefish, and lake trout populations in the western Lake Superior region. Likewise, the Band’s establishment (with the Wisconsin Department of Natural Resources (“WDNR”) and the Red Cliff Band of Lake Superior Chippewa) of lake trout refuges within the bands’ treaty-protected fishing grounds has been vital to the regional lake trout fishery.



Lake Sturgeon fingerling, Bad River Reservation



Lake trout refuges

43. The Band’s centuries-long stewardship of the lands and waters within and around the Reservation is evidenced today in a broad range of natural resource protection activities. While the Band is a small tribe of modest means, its Natural Resources Department (“NRD”) is a forefront feature of its tribal government and widely regarded for its expertise and dedication in protecting the Reservation environment. The Department includes specialists in fisheries, wildlife,

water and air quality, environmental contamination and monitoring, wetlands hydrology and chemistry, soil conservation, forestry, climate change, and invasive species.

44. The mission of the Band's NRD is

To uphold the tribal constitution and to implement the policies and regulations duly adopted and enacted by the Bad River Tribe as they relate to management and protection of the tribal natural resources; To provide technical assistance to the Bad River Tribe in the protection, conservation, development and management of the natural resources throughout the Bad River Reservation and its treaty fishing waters in Lake Superior, thereby insuring access to traditional pursuits by present and future members of the Tribe; To facilitate the development of institutions of tribal self-governance to insure the continued sovereignty of the Bad River Tribe in the regulation and management of its natural resources; To extend the mission to maintain ecosystem integrity, recognizing that all forms of life cannot be sustained long-term in an environment that has been degraded; To use the best available science and affordable technology in efforts to protect the ecosystem and the broader environment; To infuse traditional tribal values into the daily activities of the Department and manage the natural resources with the respect traditionally given them.³



Bad River NRD staff conducting field work

³ Bad River Band Natural Resources Department Mission Statement, <http://www.badriver-nsn.gov/tribal-operations/natural-resources>.

45. The Band's NRD is charged with implementing and enforcing numerous laws enacted by the Tribal Council for the protection of Reservation lands and natural resources, including the Band's Wetland and Watercourse Protection Ordinance and Environmental Response and Remediation Ordinance. The NRD accordingly regulates projects and activities occurring on Reservation lands through planning, permitting, monitoring, reporting, and remedial requirements, including in connection with the inspection, maintenance, repair, and operation of Line 5. The U.S. Environmental Protection Agency ("EPA") has delegated authority to the Band to regulate water quality on the Bad River Reservation under the Clean Water Act, *see* 33 U.S.C. § 1377, which authority is exercised by the NRD.

46. The Band's NRD works closely with other entities on a variety of environmental research and preservation matters – including the EPA on water quality issues; the University of Wisconsin on wild rice/sediment relationships and macroinvertebrate research; the U.S. Geological Survey on river channel stability, sediment transport, and flooding; local watershed groups on water quality and watershed management best practices; the WDNR on a variety of fisheries and wildlife-related endeavors; and other upper Great Lakes Indian tribes (through the Great Lakes Indian Fish & Wildlife Commission) on a broad range of natural resource management matters.

47. The results of the Band's stewardship are widely recognized. For instance, the World Wetland Network has observed that the Kakagon and Bad River Sloughs (the vast wetland complex where the Bad, White, and Kakagon Rivers meet Lake Superior)

are a fantastic example of people living in harmony with their environment. The sloughs have huge cultural importance to the indigenous Bad River Tribe, which has worked for generations to protect the wetlands and manage them in a sustainable way. The tribe

members use products from the wetland, such as rice from the wild rice beds, in a sustainable manner.⁴

48. The Sloughs comprise one of the world's last and best remaining examples of an intact freshwater estuarine ecosystem, one that includes numerous threatened and endangered plants and animals and the only remaining extensive coastal wild rice beds in the Great Lakes region. As the WDNR has put it, these sloughs "may be the largest freshwater estuarine system of this size, type and quality in the world."⁵



Kakagon-Bad River Slough complex

49. In 2012, the United States designated the Kakagon and Bad River Sloughs as a Wetland of International Significance (a "Ramsar Site") under the 1971 Convention on Wetlands of International Importance, which provides for international cooperation among more than 170 countries for the conservation of the world's most critical wetland habitats.⁶ According to the announcement of the designation,

⁴ See World Wetland Network, *Wetland Globes*, http://www.worldwetnet.org/docs/files/awards_2012/Kakagon-Bad_River_Sloughs_poster.pdf.

⁵ See WDNR, *Estuaries and Coastal Wetlands of Lake Superior*, http://dnr.wi.gov/topic/Wetlands/cw/update/Older_survey_sites/29_Bad_River.pdf.

⁶ See Ramsar, *USA names Lake Superior bog complex* (Mar. 9, 2012), <http://www.ramsar.org/news/usa-names-lake-superior-bog-complex>; Ramsar, *List of Wetlands of International Importance*,

[t]he endangered Gray Wolf (*Canis lupus*) and threatened Canada Lynx (*Lynx Canadensis*) are two rare and elusive species known to inhabit the site. It provides necessary and rare feeding, resting, and nesting habitat for both migrating and local populations of birds, and one of the two remaining sites for the endangered Piping Plover (*Charadrius melodus*) is located immediately to the north at Long Island.... [A]s the only remaining extensive coastal wild rice bed in the Great Lakes region, it is critical to ensuring the genetic diversity of Lake Superior wild rice.

Tribal members frequent the area primarily for subsistence trapping, hunting, fishing, and to retain historic harvesting techniques[.]⁷

50. The U.S. National Park Service designated the Bad River-Kakagon Slough complex as a National Natural Landmark in 1973, describing it as “an excellent representative of a true freshwater delta by virtue of its large size, complex mixture of marsh, bog and dune vegetation types, and undisturbed condition.”⁸

51. The USFWS has explained that the

Kakagon and Bad River Sloughs complex is both culturally and ecologically significant due to its diversity of habitats The Sloughs have a long list of previous recognitions including designation as: a National Park Service National Natural Landmark, a Nature Conservancy Priority Conservation Area, a Wisconsin Land Legacy Place, a Wisconsin Bird Conservation Initiative Important Bird Area, a Wisconsin Wetlands Association Wetland GEM, and a Wisconsin Coastal Wetland Primary Inventory Site. Indeed, this coastal wetland ecosystem is recognized to be among the richest and most extensive of its kind.⁹

https://rsis.ramsar.org/sites/default/files/rsiswp_search/exports/Ramsar-Sites-annotated-summary-United-States-of-America.pdf?1491490956.

⁷ See Ramsar (Mar. 9, 2012), *supra* note 6.

⁸ See U.S. National Park Service, *National Natural Landmarks*, <https://www.nps.gov/subjects/nnlandmarks/site.htm?Site=KASL-WI>.

⁹ See USFWS, *Bad River Band Celebrates the Kakagon and Bad River Sloughs*, <https://www.fws.gov/midwest/news/BadRiverCelebration.html>.



Kakagon River



Bad River-Kakagon Slough

52. In sum, the Band's centuries-long tradition of stewardship of the lands and waters within and around the Reservation, and the sustenance it draws from those resources in return, are the weft and warp of its social fabric, the central premise of its identity as a People, the foundation of its federally protected treaty rights, and the very reason the Reservation remains a world-class environmental treasure. As Tribal Chairman Mike Wiggins, Jr. explained in 2012:

The Kakagon and Bad River Sloughs wetland complex represent everything our Tribal People hold dear and sacred on many different levels. Spiritually, the place and everything it has, the clean water, the winged, the seasons, the rice and fish, connects us with our ancestors and the Creator. The Sloughs sustain the physical well-being of our community with foods such as wild rice, fish, cranberries, waterfowl, venison, and medicines. From an Anishinabe (Chippewa) world-view perspective, the wetlands ecosystem is a tangible representation of our values of caring for the environment.... There is water purification, ecological harmony, and people who are interwoven into this place where the Bad River Reservation dovetails with Lake Superior.¹⁰

THE ENBRIDGE LINE 5 PIPELINE

53. In the early 1950s, Enbridge (then known as the Lakehead Pipeline Company) negotiated with the United States, acting through the Bureau of Indian Affairs as trustee for the Band, for right-of-way easements to install and operate a pipeline across an approximately sixty-

¹⁰ See Bad River Band of Lake Superior Tribe, *Kakagon and Bad River Sloughs recognized as a Wetland of International Importance* (Apr. 5, 2012), <http://www.badriver-nsn.gov/tribal-news/200-kakagon-and-bad-river-sloughs-recognized-as-a-wetland-of-international-importance>.

foot-wide and twelve-mile-long corridor of land (affecting approximately thirty contiguous parcels) within the Bad River Reservation.

54. Line 5 was installed across the Bad River Reservation in 1953. It is thirty inches in diameter, made of steel with welded seams and coated in coal tar enamel. It is a subsurface pipeline, buried on average between three and five feet deep – though lying shallower at various junctures and now exposed at two locations. One exposure is located in the mainstem of Denomie Creek where the top of Line 5 was exposed in the channel bottom in response to a large rainfall event during the summer of 2018. The second exposure occurred between May and August of 2019 when a span of forty-nine feet of pipeline was exposed in an incised gully. That span is subject to potential further erosion and undercutting.

55. Line 5 originates at a terminal in Superior, Wisconsin. It crosses the Bad River Reservation east of Superior, continues across the Upper Peninsula of Michigan, then crosses beneath the Straits of Mackinac and continues south through Michigan's Lower Peninsula, traversing the St. Clair River and ending at a terminal in Sarnia, Ontario, Canada, roughly sixty miles northeast of Detroit.

56. Line 5 is principally a thoroughfare for Canadian oil. It transports up to 540,000 barrels (approximately twenty-three million gallons) of crude oil and natural gas liquids daily that originate in Alberta, Canada (where they are transported by other Enbridge pipelines until they reach Superior), the majority of which are ultimately refined in Ontario for use outside the United States.

THE EXPIRED EASEMENTS

57. The easements under which the pipeline was installed on the Bad River Reservation in the 1950s were renewed in the 1970s and again in 1993.

58. By their express terms, fifteen of the easements that were renewed in 1993 were “limited as to tenure for a period not to exceed 20 (Twenty) years, beginning on June 3, 1993, and ending on June 2, 2013[.]” The Band holds between a forty-percent and a ninety-percent ownership interest in eleven of the fifteen parcels to which the now-expired easements attached.¹¹

59. Those easements further expressly required as follows:

At the termination of this Grant of Easement, [Enbridge] shall remove all materials, equipment and associated installations within six months of termination, and agrees to restore the land to its prior condition. Such restoration may include, but not be limited to, filling, leveling, and seeding the right of way area.

60. Enbridge accordingly was under a legal duty to cease the flow of oil across the parcels by June 2, 2013, and to remove the pipeline from those parcels and to restore them to their prior condition within six months, or by December 2, 2013. Following that date, Enbridge had no legal right to use or possess any portion of those lands.

61. Enbridge did not seek the Band’s consent to renew the easements prior to June 2, 2013. It instead continued – upon the expiration of the easements and thereafter – to pump oil across the Reservation with no regard for the fact that its legal right to use and possess significant portions of the Reservation right-of-way had expired.

62. On January 4, 2017, the Bad River Tribal Council enacted a Resolution declaring (1) its continued objection to the presence and operation of Line 5 through the Reservation in light

¹¹ Those eleven parcels, with Bureau of Indian Affairs tract identification numbers followed by township/range information, are: BIA 430 3B23 (sec. 29, T. 47N, R. 2W); BIA 430 R 49 (sec. 5, T. 46N, R. 3W) (sec. 18, T. 47N, R. 3W); BIA 430 3H46 (sec. 7, T. 46N, R. 2W) (sec. 26, T. 47N, R. 2W); BIA 430 S 13 (sec. 14, T. 47N, R. 3W) (sec. 23, T. 47N, R. 3W); BIA 430 3H318 (sec. 22, T. 47N, R. 3W); BIA 430 3H308 (sec. 17, T. 47N, R. 3W); BIA 430 E 33 (sec. 16, T. 47N, R. 3W); BIA 430 3H322 (sec. 23, T. 47N, R. 3W); BIA 430 E 532 (sec. 16, T. 47N, R. 3W); BIA 430 R 146 (sec. 28, T. 47N, R. 2W); BIA 430 E 266 (sec. 16, T. 47N, R. 3W).

of the significant risk of pipeline failure and the catastrophic economic, environmental, and cultural harm such a failure would cause the Band; (2) its insistence that it would not consent to new easements; and (3) its determination to take “all action permitted under the law” to end Enbridge’s ongoing violation of the Band’s rights in its Reservation lands.¹²

63. A mediation ensued, but the Band and Enbridge have been unable to reach an agreement regarding the timing of the removal of the pipeline from the Reservation.

64. The burden placed on the Band by Enbridge’s ongoing activities on the Reservation has been significant and has included one calamitous accident and another that could have resulted in loss of life or property, as well as continuous alteration to the Reservation’s natural habitat and resources.

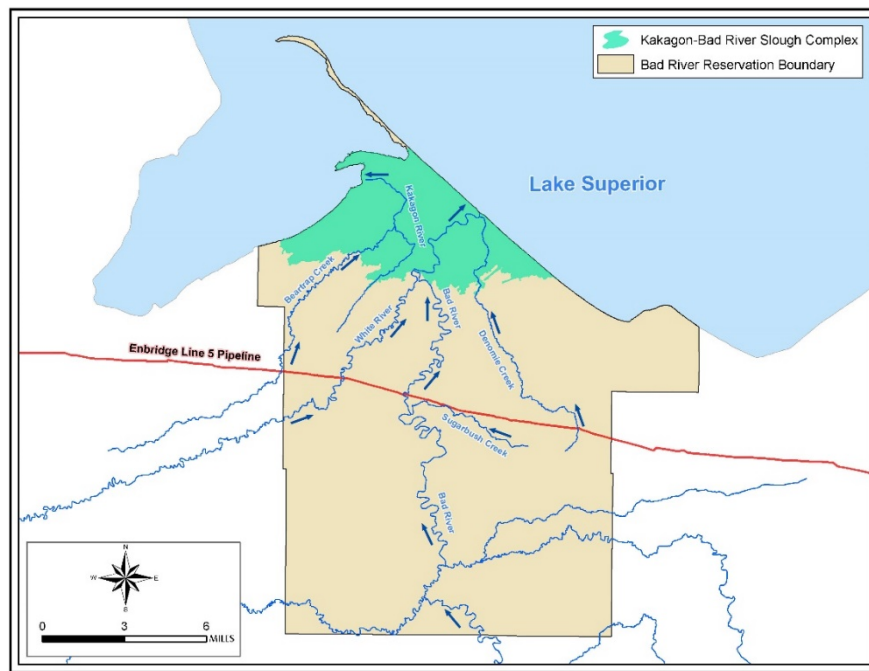
THE THREAT POSED BY LINE 5 AND ENBRIDGE’S HISTORY OF PIPELINE FAILURE

65. Enbridge’s operation of Line 5 on the Reservation constitutes a grave public nuisance. It threatens the treaty-protected rights of the Band, enjoyed and exercised by its members, to engage in fishing, hunting, and gathering for subsistence, cultural, and commercial purposes, and to steward Reservation resources not only for this generation but for the generations to come.

66. This threat has a great deal to do with geography. Line 5’s west-east path across the Reservation traverses the Bad River, the White River, and their numerous tributaries, as well as numerous tributaries of the Kakagon River. All told, there are at least fourteen mapped river and stream crossings over Line 5 within the Reservation. From the points at which these waters pass over the path of the buried pipeline, they flow northerly and empty directly into the Kakagon-

¹² Available at <http://www.badriver-nsn.gov/tribal-operations/natural-resources/pipeline-information>.

Bad River Sloughs (shown in green on the following map) and Lake Superior. An oil spill from Line 5 at or near a water crossing on the Reservation would follow those same trajectories and wreak havoc on the Band's treaty-protected rights to fish, hunt, gather, and to maintain the integrity of the watershed environment.



67. Should it fail, then, Line 5 is positioned to discharge crude oil to the Sloughs and into Lake Superior, endangering the staggering profusion of flora and fauna that members of the Band and their forbears have protected and utilized since long before European contact, and which account for the Sloughs' present-day reputation as a wetlands of global importance. This is precisely the fear that the Tribal Council highlighted in its January 4, 2017, Resolution:

[S]urface water studies demonstrate that a crude oil spill at the Waabishkaaziibi (White River) or Mashkiigon-ziibi (Bad River) would be catastrophic to the health and economy of the Odanah, WI community; river currents would impact coastal wetlands and wild rice beds, and traditional fishing areas in Anishinaabeg-gichigami (Lake Superior)

[A] pipeline break at these places will nullify our long years of effort to preserve our health, subsistence, culture and ecosystems, and sacrifices members have made instead of pursuing the possibility of short-term economic gain.¹³

68. Compounding the threat created by its highly problematic location, Line 5 has been buried in Reservation soils for sixty-six years. As pipelines age, the risk of a rupture increases due to factors including the breakdown of the pipeline coating exposing the underlying steel to corrosion, particularly in environments that transition between wet and dry soils, and cumulative stresses on the pipeline that can exacerbate latent defects in its materials, welding, and installation. As PHMSA has explained, “[o]ver time, corrosion and outside forces can degrade a pipeline to the point that a spill or release might occur.... [A]s pipelines age and environmental conditions change, a pipeline can become susceptible to corrosion.”¹⁴

69. Another common cause of pipeline failure is “fatigue cracking,” which can occur as pipelines are subject to repetitive stresses on the metal – for example, as a result of alternating increases and decreases in pressure as oil is pumped through them in cycles. The National Transportation Safety Board (“NTSB”) describes fatigue cracking as

a progressive cracking of structural material that occurs under repeated loading and may eventually lead to failure. The fatigue crack grows with cyclic loading until the crack reaches a critical length at which the stresses cause it to grow unstably leading to structural failure. Fatigue cracks can initiate at microscopic flaws or weak spots in the material. Once initiated, cracks can grow at stress levels that are quite low in comparison to the material’s yield strength.¹⁵

70. In other words, fatigue cracking occurs as a result of, among other causes, the repeated pressures of pumping oil through a pipeline over time. As PHMSA explains:

¹³ *Id.*

¹⁴ PHMSA, *Fact Sheet: Pipe Defects and Anomalies* (Dec. 1, 2011), <https://primis.phmsa.dot.gov/comm/FactSheets/FSPipeDefects.htm?nocache=7250>.

¹⁵ NTSB, *Rupture of Enbridge Pipeline and Release of Crude Oil near Cohasset, Minnesota* (July 4, 2002) at 6 n.6, <https://www.nts.gov/investigations/AccidentReports/Reports/PA0401.pdf>.

One cause-condition of cracks is “cyclic fatigue”. This refers to pipe stress that occurs as a result of fluctuating cycles in operating pressure within the pipe. Fluctuating pressures cause small changes in the pipe’s shape, and those changes in turn can weaken the pipe, *over a long period of time*. Imagine taking a piece of steel and bending it back and forth multiple [times] repeatedly. Eventually the steel will crack, or even break, at the bend.¹⁶

71. Enbridge pipelines of younger vintage than Line 5 have failed due to fatigue cracking. For example, an Enbridge pipeline built in the 1960s failed in November 2007, causing an oil spill near Clearbrook, Minnesota. A fatigue crack had formed during its installation, and by 2007 the repeated pressure of the oil “during the operational life of the pipeline caused the fatigue crack to grow to failure.”¹⁷

72. That same year, an Enbridge pipeline failed in Atwood, Wisconsin, spilling 63,000 gallons of crude oil into the environment. The cause was a manufacturing defect that grew over time under the cyclical pressure of the oil. According to PHMSA, “[t]he fracture propagated across the adjacent upstream girth weld. This original defect grew to failure while in service (under cyclic loads) by a fatigue mechanism.”¹⁸

73. And while the defects, cracks, or other features that lead to failure through fatigue often escape the operator’s notice, the consequences can be catastrophic. For example, when an aging Enbridge pipeline burst from “fatigue cracking” along a welded seam in 2002 and spilled approximately 252,000 gallons of crude oil into a wetlands near Cohasset, Minnesota, Enbridge and other responders determined that the only way to prevent the oil from reaching nearby waterways was to set it on fire. According to the NTSB, this involved

¹⁶ *Supra* note 14 (emphasis added).

¹⁷ PHMSA, *Summary Incident Report, Enbridge Line 3 Crude Oil Leak* (Sept. 30, 2010), https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Enbridge_HL_MN_2007-11-13_508.pdf.

¹⁸ PHMSA, *Failure Investigation Report – Enbridge Line 14 Rupture at Atwood (Owen) WI* (June 11, 2012), http://pstrust.org/wp-content/uploads/2013/05/Enbridge_WI_D.pdf.

coat[ing] the spill's perimeter with chemical fire retardant from tanker planes. After the chemical was placed, flares were shot into the crude oil to ignite the oil.... The burn created a smoke plume about 1 mile high and 5 miles long.¹⁹



Enbridge's burn at Cohasset, 2002



Enbridge's Cohasset plume, 2002

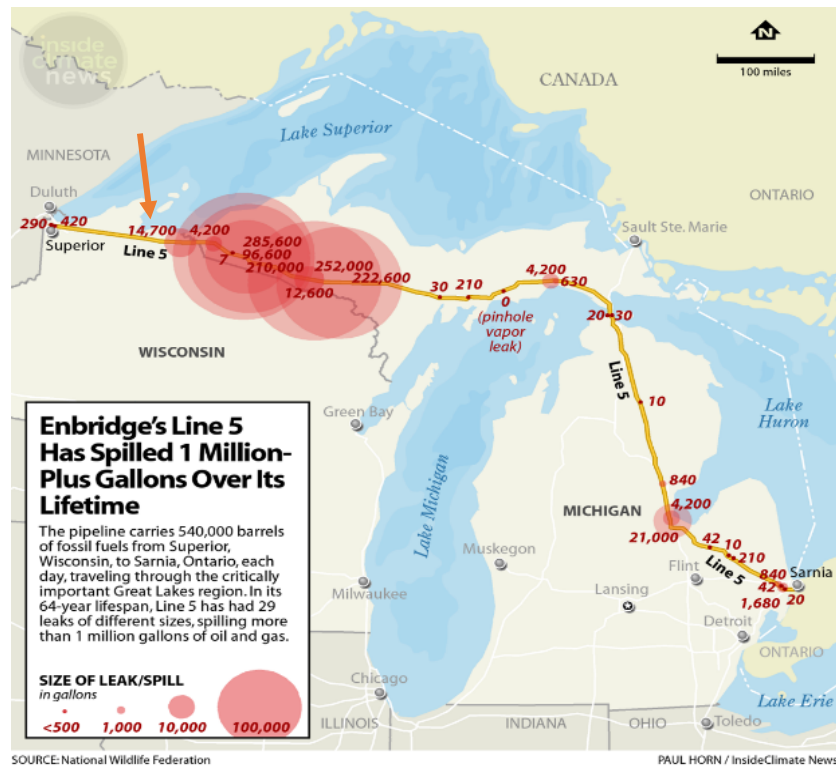
74. These pipeline failures are not anomalies. According to PHMSA data, the U.S. portion of Enbridge's pipeline network experienced 215 hazardous liquids "incidents"²⁰ from 2002 to August 2018 – an average of one every twenty-eight days.²¹

75. Line 5 itself has experienced at least twenty-nine leaks and spills since its installation, resulting in the release of over one million gallons of oil, with several significant spills in close proximity to the Bad River Reservation (which is indicated by the orange arrow in the following map):

¹⁹ *Supra* note 15, at 1, 3.

²⁰ An "incident" is defined by PHMSA as a pipeline failure resulting in any of the following: death or injury requiring in-patient hospitalization; \$50,000 (1984 dollars) or more in total costs; highly volatile liquid releases of five barrels (210 gallons) or more or other liquid releases of fifty barrels (2,100 gallons) or more; liquid releases resulting in an unintentional fire or explosion. See PHMSA, *Pipeline Incident Flagged Files* (June 5, 2019), <https://www.phmsa.dot.gov/data-and-statistics/pipeline/pipeline-incident-flagged-files>.

²¹ *Id.*



Line 5 spills between Superior, Wisconsin, and Sarnia, Ontario²²

76. One of the most infamous of Enbridge's spills occurred in July 2010, when Enbridge Line 6B, installed in 1968, ruptured from a corrosion-related fatigue crack and spilled what the EPA determined to be more than one million gallons of crude oil into a direct tributary of the Kalamazoo River in southern Michigan.

77. The rupture of Line 6B resulted in catastrophic damage to the lands, waters, wildlife, and other resources of that watershed. As the NTSB found, "[t]he oil saturated the

²² See Sabrina Shankman, *Spills on Aging Enbridge Pipeline Have Topped 1 Million Gallons, Report Says*, Inside Climate News (Apr. 26, 2017), <https://insideclimatenews.org/news/25042017/enbridge-pipeline-mackinac-line-5-michigan-oil-spill-risk>; Garret Ellison, *Enbridge Line 5 has spilled at least 1.1 million gallons in past 50 years*, MLive (Apr. 26, 2017), https://www.mlive.com/news/2017/04/enbridge_line_5_spill_history.html.

surrounding wetlands and flowed into the Talmadge Creek and Kalamazoo River.”²³ To date that spill has affected more than thirty-one miles of waterways and wetlands. The NTSB has declared the Enbridge Line 6B spill to be the costliest inland oil spill in United States history.²⁴



Enbridge Line 6B spill, Marshall, Michigan, 2010

78. In addition to the fallibility of pipelines, the Line 6B calamity also demonstrated the fallibility of the people and organizations that operate them. The NTSB concluded that “the rupture and prolonged release were made possible by pervasive organizational failures at Enbridge[.]”²⁵ These failures included that Enbridge “staff failed to recognize that the pipeline had ruptured until notified by an outside caller more than 17 hours later.”²⁶

²³ NTSB, *Accident Report: Enbridge Incorporated Hazardous Liquid Pipeline Rupture and Release, Marshall Michigan* (July 25, 2010) at xii, <https://www.nts.gov/investigations/AccidentReports/Reports/PA1201.pdf>.

²⁴ See NTSB, *News Release: Pipeline Rupture and Oil Spill Accident Caused by Organizational Failures and Weak Regulations* (July 10, 2012), <https://www.nts.gov/news/press-releases/Pages/PR20120710.aspx>.

²⁵ *Supra* note 23, at xii-xiii.

²⁶ *Id.*

79. In addition to the company's errors, the destructive effects of the Line 6B spill were compounded by the wetland location of the rupture, which delayed the clean-up efforts. According to the NTSB, as shown in the following photograph, "[t]he wetland conditions in addition to the crude oil release made it difficult for vacuum trucks and excavators to get near the rupture location. Large wooden matting had to be placed around the rupture location to bring heavy equipment close to the release."²⁷



Vacuum truck on wooden matting near Line 6B spill, 2010

80. These difficulties posed by spongy wetland soils existed despite the fact that the Line 6B spill occurred near a relatively developed area of southern Michigan, with an interstate highway and other paved roads and towns very near at hand. By contrast, responders to a Line 5 spill on the Bad River Reservation would confront far more expansive and remote wetlands in an area that is largely roadless:

²⁷ *Id.* at 4.



Bad River watershed downstream from Line 5

81. While Enbridge has touted improvements in its crack detection and pipeline integrity protocols since the Line 6B spill, according to PHMSA data Enbridge pipelines experienced 122 incidents between 2011 and 2018.²⁸ Indeed, in 2018, a State of Minnesota Administrative Law Judge, assessing the viability of alternative routes for Enbridge Line 3 in that state, observed that

[w]hile [Enbridge] vows that its spill detection mechanisms have been enhanced since 2010, [Enbridge] still relies, in part, on the public to report leaks, and the Marshall [Line 6B] spill remains a recent example of how aging pipelines, combined with a fallible leak detection system, can have catastrophic results.²⁹

82. Indeed, when PHMSA investigated a rupture at an Enbridge facility in Oklahoma several years after the Line 6B spill in Michigan it concluded, with direct echoes of that calamitous event, that “[t]he primary cause of the leak was the presence of an undetected internal corrosion defect that extended through the pipe wall and produced a substantial crude oil release that went

²⁸ *Supra* note 20.

²⁹ Minnesota Office of Administrative Hearings for the Public Utilities Commission, *Application of Enbridge Energy, LP, for a Certificate of Need for the Line 3 Project in Minnesota, Findings of Fact, Conclusions of Law, and Recommendation* (Apr. 23, 2018) at 236, https://mn.gov/oah/assets/2500-32764-2500-33377-enbridge-line-3-report_tcm19-336838.pdf.

undetected for almost 24 hours” as a result of an Enbridge operator’s “misinterpretation” of alarm data.³⁰

83. Within the past year, explosions on Enbridge natural gas pipelines have resulted in substantial environmental harm and property destruction. In the fall of 2018, an Enbridge natural gas pipeline line ruptured and exploded in British Columbia, near a First Nation village.³¹ In early 2019, an Enbridge pipeline in Ohio ruptured with the resulting explosion visible from miles away.³²



Enbridge explosion, British Columbia, 2018



Enbridge explosion, Ohio, 2019

84. The causes and full scope of the environmental destruction caused by these events are not yet known. But what is clear is that Enbridge’s modern pipeline inspection technology and integrity management systems did not anticipate these incidents, let alone prevent them from happening.

85. Nor is the threat to the Bad River Reservation posed by Line 5 limited to a full-blown pipeline rupture. Pipelines can develop “pinhole” leaks or very minor cracks that discharge

³⁰ PHMSA, *Failure Investigation Report – Enbridge Pipelines, LLC, Tank 3013 24-inch Fill line failure in Cushing, OK* (Feb. 24, 2014) at 7, <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/safety-reports/17981/enbridge2013-05-17-final-internet.pdf>.

³¹ Global News, *Enbridge natural gas pipeline explodes near Prince George* (Oct. 10, 2018), <https://globalnews.ca/video/4531983/enbridge-natural-gas-pipeline-explodes-near-prince-george>.

³² CBC News, *Enbridge pipeline explosion sends fireball into Ohio sky* (Jan. 22, 2019), <https://www.cbc.ca/news/canada/calgary/enbridge-ohio-pipeline-explosion-1.4987897>.

oil or other hazardous liquids into the environment slowly over time. Such a leak was discovered on Line 5 in the Upper Peninsula of Michigan in 1990, though not until it had released 630 gallons of crude oil into the environment.³³ Another was discovered in 2014, and two more were discovered as recently as November 2017.³⁴

86. Such leaks can escape notice by operator leak detection systems for extended periods because they usually do not result in pressure drops significant enough to be detectable by those systems. For example, in February 2004, an Enbridge pipeline that had been installed in 1957 leaked over 42,000 gallons of crude oil near Grand Rapids, Minnesota, through what Enbridge in its report to PHMSA described as a “slow, weeping crack.”³⁵

87. In 2011, an Enbridge pipeline in Canada leaked what the company originally estimated to be 168 gallons of crude oil but later revised to as high as 63,000 gallons. According to the CBC:

Enbridge officials say they don’t know how the leak began, but they said the oil leaked out of an opening about the size of a pinhole.

Oil coming out of such a small opening has, over time, created a spill about half a hectare in size, according to the company.

[An Enbridge official] said Enbridge makes regular aerial surveillance checks on the ... pipeline and uses internal inspection tools to detect leaks. [cont’d]

³³ See Garret Ellison, *supra* note 22.

³⁴ Keith Matheny, ‘Pinhole’ leak in U.P. gas pipeline raises fears, *Detroit Free Press* (Dec. 16, 2014), <https://www.freep.com/story/money/business/michigan/2014/12/17/enbridge-pipeline-gas-oil-leak-straits-mackinac/20500397/>; Jim Malewitz and Craig Mauger, ‘History of failure’ highlights Line 5 risks outside Straits of Mackinac, *Bridgemi* (July 11, 2018), <https://www.bridgemi.com/michigan-environment-watch/history-failure-highlights-line-5-risks-outside-straits-mackinac>.

³⁵ PHMSA, *Summary Incident Report* (Sept. 30, 2010) (p. 4 of Enbridge Report), https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Enbridge_HL_MN_2004-02-19_508.pdf.

But in the latest case, those systems failed because the hole was so small, he said.³⁶



Enbridge clean-up of 63,000-gallon pinhole leak in Canada

88. A delivery of hazardous crude oil by a slow “weeping” of this sort into the rivers and wetlands in this remote area on the Reservation could well evade detection for a long period of time.

THE LOOMING THREAT AT THE BAD RIVER MEANDER

89. While the threat of a rupture or leak exists along Line 5’s entire path across the Reservation, the circumstance existing near where the pipeline passes beneath the Bad River is one of impending disaster. Here, the river is carving away the banks and soils that stabilize and support the aging pipeline. This relentless process will soon expose Line 5 to the full force of the river’s currents and the load of fallen trees and other debris conveyed by the River.

90. Because of its hydrology, its topography, and the erosion-prone alluvial soils through which it passes, the Bad River experiences significant channel migration, whereby the

³⁶ CBC News, *No coverup in N.W.T. pipeline leak: Enbridge* (June 7, 2011), <https://www.cbc.ca/news/canada/north/no-coverup-in-n-w-t-pipeline-leak-enbridge-1.1029611>.

moving water causes a constant process of bank erosion and sediment deposition that changes the river's path and location over time.³⁷

91. The NTSB (in examining the cause of multiple catastrophic pipeline ruptures in Texas in 1994, discussed below) has described the process of channel migration as follows:

With time, alluvial stream system banks will erode, sediments will be deposited, and flood plains, islands, and side channels will undergo modification. Alluvial channels continually change position and shape due to the water flow exerted on the streambed and banks....

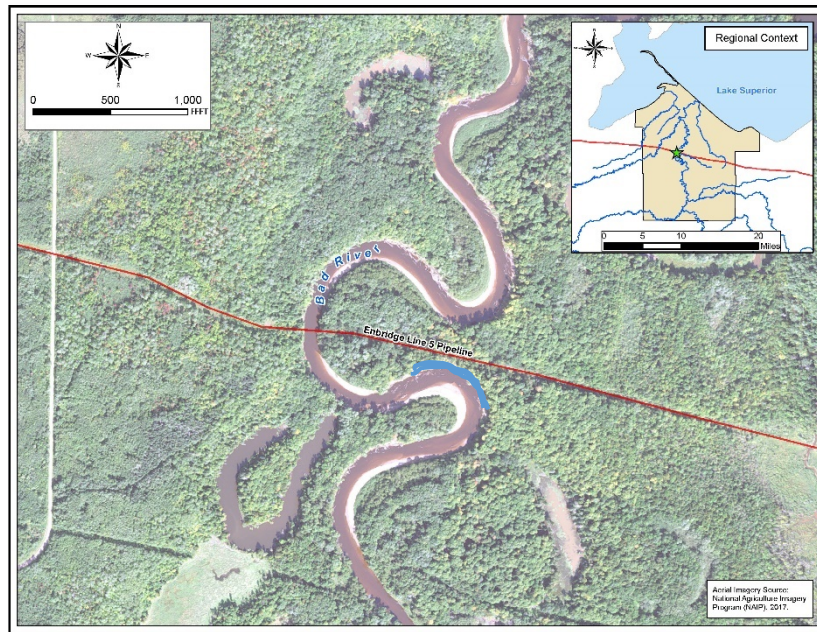
....

As a meandering stream system moves laterally and longitudinally, meander loops move at unequal rates because the differing compositions of the banks result in differing erosion rates. Channel sections appear as slowly developing bulb forms. On highly meandering streams, elongated, bulb-shaped loops are likely to form with the narrowest land area (neck) gradually eroding until the stream cuts directly across it. The cutoff meander loop, no longer a part of the active stream channel, becomes an oxbow lake.³⁸

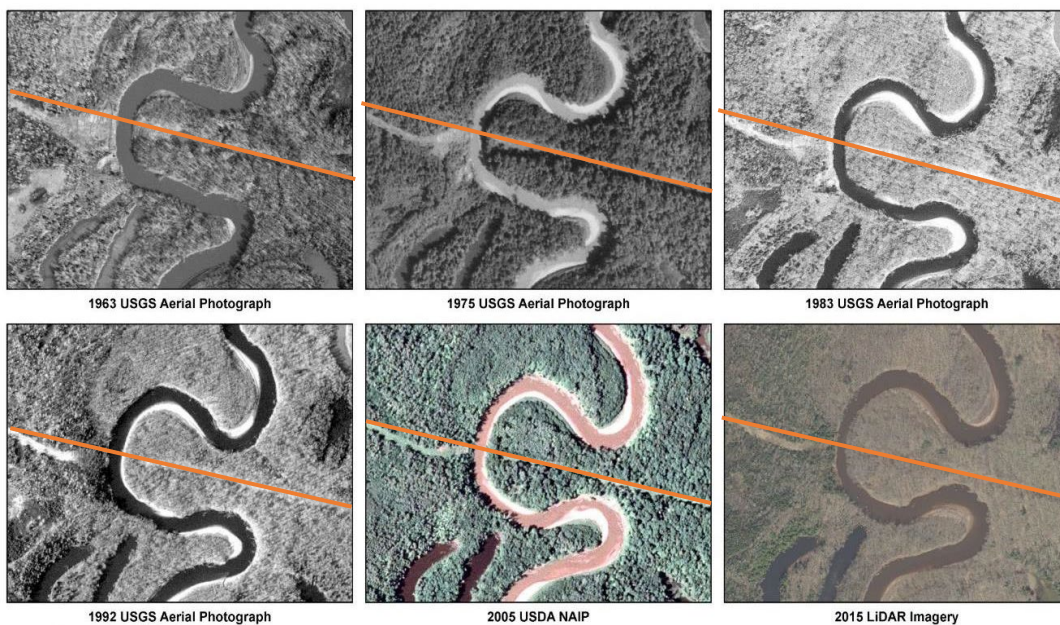
92. Illustrating these processes in dramatic fashion, a meander bend in the Bad River adjacent to where the pipeline is currently buried under the River – and directly upstream from the Kakagon and Bad River Sloughs – has been migrating, causing the river to move ever closer to a portion of the pipeline that is buried much shallower than the adjacent river bottom. That bend is highlighted in blue in the following illustration:

³⁷ For graphic depictions of this process, *see, e.g.*, <https://www.youtube.com/watch?v=4HyHXepETX8>; <https://www.youtube.com/watch?v=izgc3vFimP8>.

³⁸ NTSB, *Pipeline Special Investigation Report: Evaluation of Pipeline Failures During Flooding and of Spill Response Actions, San Jacinto River Near Houston Texas* (October 1994) at 24, http://pstrust.org/docs/ntsb_doc24.pdf.



93. The following sequence of aerial images shows the migration of that bend toward the buried pipeline (highlighted in orange) between 1963 (upper left) and 2015 (lower right):



94. Line 5 was installed in 1953. Ten years later, in 1963, the north bank of the meander bend was approximately 320 feet from the pipeline. In 2015, the distance had decreased to eighty

feet, and today it is only twenty-eight feet. The average encroachment of five feet per year has increased in recent years: from 2015-2019 the yearly bank loss has been thirteen feet on average.

95. The following photographs from Spring 2019, taken three days apart, show the migrating bend that appears in the above aerial images. As the collapsing banks and dislodged trees evidence, the river is literally carving its way toward the buried pipeline:



Bend of Bad River near Line 5, April 11 and 14, 2019

96. Based on the observations detailed above regarding the Bad River's migration, it is anticipated that the river will reach the pipeline in the next two to five years, though this timetable could be shortened significantly depending on factors including river hydrology and hydraulics and the properties and composition of the soils between the river and the pipeline. The Band and Enbridge are monitoring the migration of the river closely.

97. The situation at the meander is a looming disaster. When the migrating channel of the Bad River reaches the pipeline, it will continue to scour the surrounding soil until the pipeline is exposed. When this occurs, the pipeline will be unsupported by underlying or surrounding soils for the length of the exposure, and that unsupported length will continue to increase as the river continues to erode the soils.

98. This will subject the pipeline to numerous stresses far in excess of what it was designed to withstand even when it was new, much less at sixty-six or more years of age. A

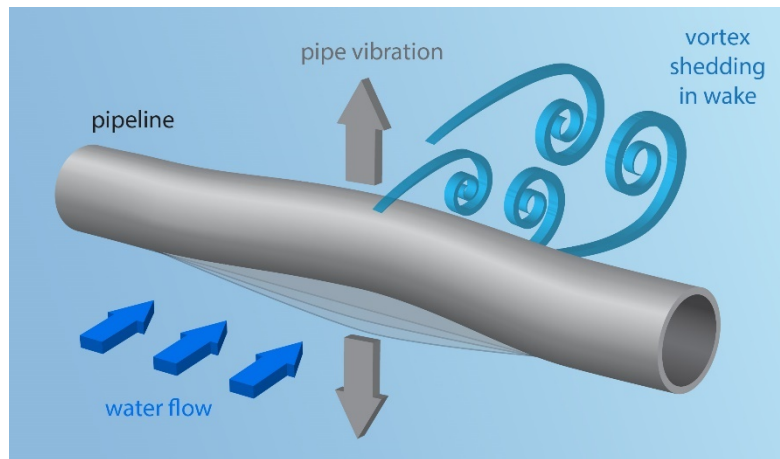
pipeline designed to be supported by and secured in soil will be stripped of that support and protective covering and exposed to the enormous force of the moving water and the pipeline's own considerable, unsupported weight (including the weight of the oil within it at that juncture).

99. Moreover, as the photographs of the eroding banks in paragraph 95 evidence, because the Bad River is constantly eroding its banks in the process of channel migration – not only at the Line 5 crossing but all along the Bad River's course – it is naturally debris-laden, often carrying logs and entire fallen trees in its currents. Exposure of Line 5 to the Bad River will thus result in tremendous and repeated impacts to the unsupported pipeline, as well as the potential for forming debris dams that increase the force of the river on the pipeline. The same is true with respect to ice flows that can cause ice dams and scour.

100. Such forces are demonstrated to stress the welds and walls of pipelines, and to accelerate metal fatigue leading to cracking and rupture.

101. Significantly compounding the danger of these pressures, when the pipeline is exposed to the river's current it may begin to oscillate in an up-and-down pattern. This process is called "vortex-induced vibration," and it is "widely recognized as one of the main causes of fatigue damage to pipelines."³⁹

³⁹ Yang et al., *Experimental study of vortex-induced vibrations of a pipeline near an erodible sandy seabed*, 35 Ocean Engineering 301 (2008), <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1028.4347&rep=rep1&type=pdf>.



Vortex-induced vibration⁴⁰

102. The repetitive oscillation of the pipe in this fashion, in combination with the already increased stresses from the force of the water and the unsupported weight of the oil-filled pipe, creates an ideal circumstance for accelerated fatigue cracking. And, as the NTSB has explained, “[o]nce initiated, cracks can grow at stress levels that are quite low in comparison to the material’s yield strength.”⁴¹ That is, movement *weakens* pipelines. Again, as PHMSA has noted, “[i]magine taking a piece of steel and bending it back and forth multiple [times] repeatedly. Eventually the steel will crack, or even break, at the bend.”⁴² Indeed, “[b]ack-and-forth vibration of pipework is one of the most common causes of failure.”⁴³

103. This can result in a complete severance of a pipeline. For example, on July 1, 2011, an ExxonMobil pipeline failed near Laurel, Montana, releasing 63,000 gallons of crude oil into the Yellowstone River. According to an independent investigation:

⁴⁰ For video depictions of vortex induced vibration, see, e.g., <https://www.youtube.com/watch?v=CzPMJMKckyU>; <https://www.youtube.com/watch?v=4nsuUDPD23M>; <https://www.youtube.com/watch?v=kJIRZk6tmVs>; <https://www.youtube.com/watch?v=0vk51CpnAqY>.

⁴¹ *Supra* note 15.

⁴² *Supra* note 14.

⁴³ Neil Parkinson, *How to break a pipeline*, Offshore Engineer (Sept. 1, 2014), <https://www.oedigital.com/news/454989-how-to-break-a-pipeline>.

The pipeline failed at a girth weld as a result of the effects of external loading that occurred due to exposure to flood conditions. The failure mechanism was fatigue crack growth adjacent to a girth weld, followed by ductile fracture of the remaining section due to tensile overload.... *The cracks initiated and grew by fatigue due to vortex-induced vibration (VIV) of the exposed pipe in the river current....*

....

*... VIV is known to have caused other pipelines to fail when the pipelines have become exposed to cross flowing fluid currents.*⁴⁴

104. The result was rapidly accelerated fatigue cracking resulting in a complete circumferential severance – known in the industry as a “guillotine rupture” – of the pipeline:



Guillotine rupture of ExxonMobil pipeline, Laurel, Montana, 2011⁴⁵

105. The forces working on the exposed ExxonMobil pipe were likely exacerbated by “the effect of water flow impinging on debris trapped against the exposed pipe, such as trees and brush ... washed in from upstream,” which “would increase the net tension acting on the pipe over time as more debris accumulates.”⁴⁶

106. PHMSA agreed that the guillotine rupture of the ExxonMobil pipeline involved “oscillating vibrational forces caused by the water flowing over the pipe” and by “additional forces

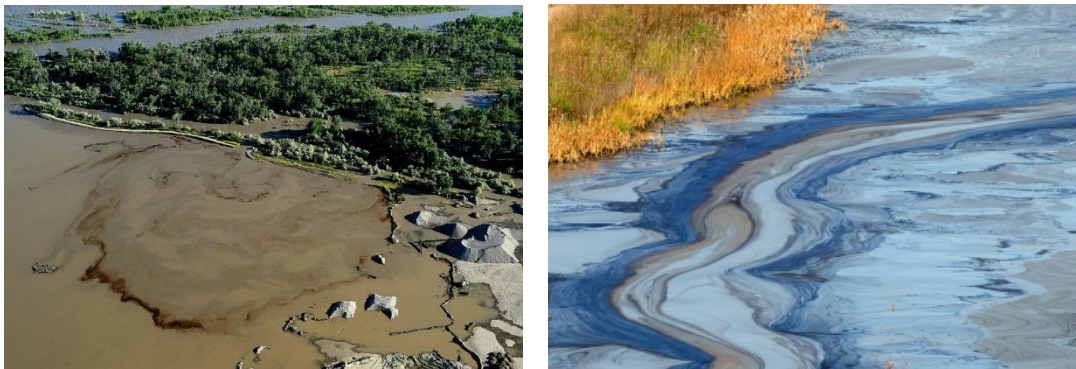
⁴⁴ Kiefner & Associates, *Investigation of the Silvertip-Billings Crude Oil Pipeline Failure at the Yellowstone River Crossing* (Aug. 2012) (“Kiefner Report”) at 1, 58 (emphasis added) (included in PHMSA, *ExxonMobil Silvertip Pipeline Crude Oil Release into the Yellowstone River in Laurel, MT on 7/1/2011* (Oct. 30, 2012) (“PHMSA Yellowstone River Report”)), https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/ExxonMobil_HL_MT_10-2012.pdf.

⁴⁵ Kiefner Report, *supra* note 44, at 12-13.

⁴⁶ *Id.* at 58.

caused by the river current impinging on the increased cross-sectional area of debris that accumulated on the pipe during flooding.”⁴⁷

107. Ultimately, the agency concluded that “the rupture was caused by channel migration and river bottom scour, leaving a large span of the pipeline exposed to prolonged current forces and debris washing downstream in the river.”⁴⁸ The result was catastrophic for the Yellowstone River, and the spill was included in those cited by the Tribal Council in its January 4, 2017, Resolution as among “pipelines of similar setting [that] have broken and caused extensive environmental damages[.]”⁴⁹



Yellowstone River oil spill, Laurel, Montana, 2011

108. Nor was the Yellowstone River spill an anomaly. As one example among many, “[o]n May 31, 2015, a 24-inch natural gas ‘auxiliary’ pipeline crossing the Arkansas River ... failed due to vortex-induced vibration after high water levels eroded the ground cover and exposed the pipeline to the river’s flow.”⁵⁰

⁴⁷ PHMSA Yellowstone River Report, *supra* note 44, at 12.

⁴⁸ PHMSA, *Pipeline Safety: Potential for Damage to Pipeline Facilities Caused by Flooding, River Scour, and River Channel Migration*, 81 Fed. Reg. 2,943, 2,944 (Jan. 19, 2016), <https://www.federalregister.gov/documents/2016/01/19/2016-00765/pipeline-safety-potential-for-damage-to-pipeline-facilities-caused-by-flooding-river-scour-and-river>.

⁴⁹ *Supra* note 12.

⁵⁰ PHMSA, *Advisory Bulletin*, 81 Fed. Reg. 54,512 (Aug. 16, 2016), <https://www.federalregister.gov/documents/2016/08/16/2016-19494/pipeline-safety-clarification-of-terms-relating-to-pipeline-operational-status>.

109. In fact, PHMSA has repeatedly issued warnings to pipeline operators about the dangers of pipeline failure when pipelines are exposed by channel migration, flooding, and river scour. In addition to the Arkansas River and Yellowstone River spills noted above, PHMSA has called attention to others:

On August 13, 2011, Enterprise Products Operating, LLC discovered a release of 28,350 gallons (675 barrels) of natural gasoline in the Missouri River in Iowa. The rupture, according to the metallurgical report, was the result of fatigue crack growth driven by vibrations in the pipe from vortex shedding [*i.e.*, vortex-induced vibration].

....

On July 15, 2011, NuStar Pipeline Operating Partnership, L.P. reported a 4,200 gallon (100 barrels) anhydrous ammonia spill in the Missouri River in Nebraska The 6-inch-diameter pipeline was exposed by scouring during extreme flooding.

On January 17, 2015, a breach in the Bridger Pipeline Company's Poplar system resulted in another spill into the Yellowstone River near the town of Glendive, Montana, releasing an estimated 28,434 gallons (677 barrels) of crude oil into the river and impacting local water supplies. Preliminary information indicates over 100 feet of pipeline was exposed on the river bottom, and a release point was near a girth weld.⁵¹

110. Based on these events, PHMSA has warned as follows:

As shown in these events [r]iver scour and channel migration may damage a pipeline as a result of additional stresses imposed on the pipe by undermining underlying support soils, exposing the pipeline to lateral water forces and impact from waterborne debris. Lateral water forces may cause excessive bending loads that lead to pipeline failures, and possible impact forces from debris in the river or harmonic vibrations from water rapidly passing over pipelines can also increase the potential for pipeline failures.⁵²

111. In 2013 PHMSA issued a formal report to Congress about the extraordinary dangers of pipeline failure when pipelines are exposed to river currents by channel migration or by "new

⁵¹ PHMSA, *Pipeline Safety: Potential for Damage to Pipeline Facilities Caused by Flooding, River Scour, and River Channel Migration*, 81 Fed. Reg. 2,943, 2,943-44 (Jan. 19, 2016), <https://www.federalregister.gov/documents/2016/01/19/2016-00765/pipeline-safety-potential-for-damage-to-pipeline-facilities-caused-by-flooding-river-scour-and-river>.

⁵² *Id.*

channels cut by floodwaters.” In its report, PHMSA informed Congress of numerous such failures between 1993 and 2011:

Amoco Pipeline Co. reported a 390-barrel gasoline spill in the Big Sioux River along the South Dakota and Iowa border occurring on April 1, 1993. The 6-inch diameter pipeline was severed at a girth weld, and the investigation indicated that the pipeline was partially exposed as a result of scouring.

Williams Pipeline Co. reported a 227-barrel liquefied petroleum gas spill in the Big Sioux River in Iowa occurring on July 3, 1993. The report includes speculation that the 6-inch diameter pipeline was damaged by objects carried by floodwaters.

Exxon Pipeline reported a 492-barrel highly volatile liquid spill in the San Jacinto River in Texas occurring on October 19, 1994. The 8-inch diameter pipeline failed after being washed out at the river crossing.

Colonial Pipeline Co reported a 20,000-barrel gasoline spill in the San Jacinto River in Texas occurring on October 20, 1994. The 40-inch diameter pipeline was severed by a new river channel caused by flooding.

Colonial Pipeline Co reported a 10,000-barrel diesel fuel spill in the San Jacinto River in Texas occurring on October 20, 1994. The 36-inch diameter pipeline was severed by the same new river channel as the 40-inch diameter pipeline listed above.

Texaco Pipeline reported a 5,350-barrel crude oil spill in the San Jacinto River in Texas occurring on October 21, 1994. The 20-inch diameter pipeline was severed by a new river channel caused by flooding.

Texas Eastern Product Pipeline reported a 3,181-barrel gasoline spill in the Red River in Louisiana occurring on December 20, 1994. The 20-inch diameter pipeline failed after being washed out during high flow conditions in the river.

Chevron reported a 4,000-barrel crude oil spill in Fresno County, California, occurring on March 11, 1995. The 18-inch diameter pipeline failed at a girth weld after soil eroded from around the pipeline and debris struck the pipeline.

Conoco reported a 1,500-barrel propane spill in Pole Cat Creek in Oklahoma occurring on October 7, 1998. The 10-inch diameter pipeline failed after soil eroded from around the pipeline and debris struck the pipeline.

Mid Valley Pipeline reported a 6,909-barrel crude oil spill in the Kentucky River in Kentucky occurring on January 26, 2005. The 22-inch pipeline failed at a girth weld adjacent to the river due to external stress caused by soil subsidence.

Shell Pipeline Company reported a 3,245-barrel crude oil spill at a levee in Louisiana occurring on September 2, 2005. The 20-inch pipeline passed through a levee that was washed away by the Hurricane Katrina storm surge.

Exxon Mobil reported a 97-barrel highly volatile liquid spill in the Atchafalya River in Louisiana occurring on June 14, 2007. The 8-inch diameter pipeline was exposed by river currents, and a stump lodged under the pipeline contributed to a pinhole leak.

Chevron reported a 5-barrel crude oil spill in Louisiana occurring on December 23, 2009. The failure of the 16-inch pipeline was caused by scouring.

....

NuStar Pipeline Operating partnership reported a 100-barrel anhydrous ammonia spill in the Missouri River in Nebraska occurring on July 15, 2011. The 6-inch diameter pipeline was exposed by scouring during extreme flooding.

Enterprise Products Operating LLC reported a 675-barrel natural gasoline spill adjacent to the Missouri River in Iowa on August 13, 2011. The pipeline was exposed by flood waters and failed at a girth weld due to external loading.⁵³

112. According to PHMSA, all of these events occurred as rivers washed away the soils around buried pipelines, exposing them to forces they were not designed to withstand. In 2017, the Secretary of Transportation informed members of Congress that “[s]ince the 2013 [PHMSA] report to Congress, three additional accidents have occurred at river or creek crossings that were directly impacted or influenced by a flooding event.”⁵⁴

113. The Band’s risk of having its Reservation added to this listing is compounded by the propensity for unstable slopes, over-steepened channel banks, waterway erosion, and destructive flooding in the watersheds that make up the Reservation. During the 1960s, severe flooding in the Bad River watershed forced the entire village of Odanah to be moved several miles

⁵³ PHMSA, *Report to Congress on Hazardous Liquid Pipelines Crossing Inland Waterways* (August 23, 2013) at 7-9, <https://www.phmsa.dot.gov/news/report-congress-hazardous-liquid-pipelines-crossing-inland-waterways-august-2013>.

⁵⁴ Secretary of Transportation correspondence to members of Congress (July 20, 2017), <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/news/18241/report-congress-real-time-monitoring-flood-events-july-2017.pdf>.

from the Bad River floodplain to its current higher location. As recently as 2016, a 200-year flood ravaged the Reservation, destroying roadways and undermining the same alluvial, erosion-prone Reservation soils presently being carved away by the Bad River. The affected roadways were the same transportation corridors that would be critical during an emergency response operation related to any Line 5 spill or rupture:



Bad River Reservation flood, July 2016

114. As shown in the image below, these destructive waters inundated the meander area. Line 5 is shown in yellow and the migrating meander bend is indicated by the orange arrow:

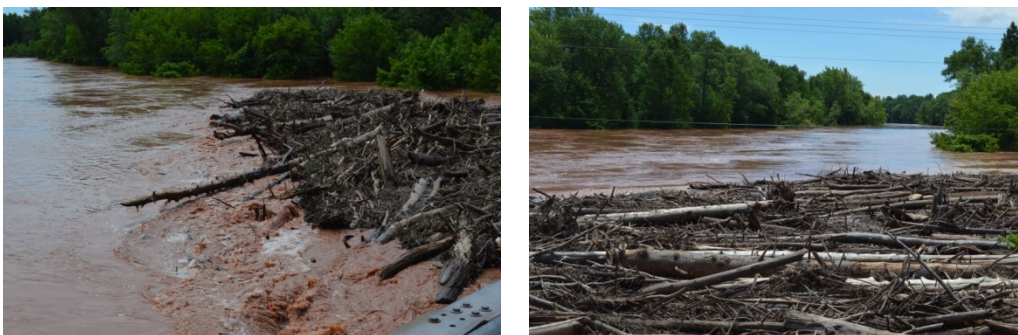


Bad River flood profile, July 2016

115. Such flooding events can greatly accelerate channel migration. As the NTSB has explained:

Changes in channel geometry over time are particularly significant during periods when alluvial channels are subjected to high water. Erosive forces during periods of high water flow may have a capacity as much as 100 times greater than those acting during periods of intermediate or low flow.⁵⁵

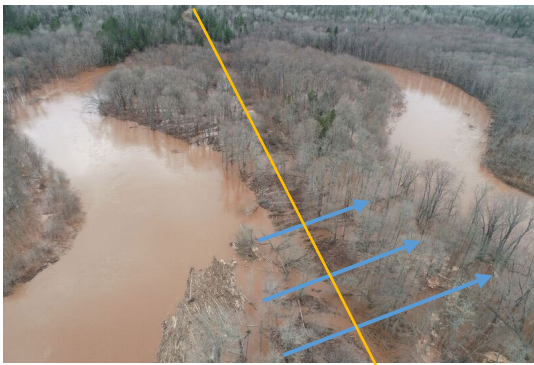
116. And as noted, when the Bad River floods, it carries in its currents logs and other debris that could readily impact an exposed pipeline with horrendous results:



Logs carried by Bad River currents during flooding

⁵⁵ NTSB, *Pipeline Special Investigation Report: Evaluation of Pipeline Failures During Flooding and of Spill Response Actions, San Jacinto River Near Houston Texas* (Oct. 1994) at 24, http://pstrust.org/docs/ntsb_doc24.pdf.

117. In April 2019, the Reservation flooded again. The left photograph below (with the path of the buried pipeline in yellow) shows the 2019 floodwaters at the Bad River meander bend overtopping the eroding banks of the bend and inundating and flowing *across* the neck of the meander, where lies the buried pipeline. As depicted in the image on the right, this process eventually will cut a new channel of the river across the neck of the meander, leaving the exposed pipeline in the direct path of the river currents.



Bad River meander (Bayfield Cty. drone image)



Bad River meander (aerial image)

118. The Bad River has forged new channels across meander necks at other locations on the Reservation, both upstream and downstream of the Line 5 crossing, as illustrated by these images from a location approximately two miles downstream of the crossing:



2008 USDA NAIP



2010 USDA NAIP



2011 Google Earth



2013 USDA NAIP



2015 LIDAR imagery



2017 USDA NAIP

119. The NTSB has explained that “[t]he propensity of alluvial streams to meander, to cut off oxbows during floods ... has been well-documented for many years” and that “flood-caused failures” of pipelines under these circumstances are not infrequent.⁵⁶

120. Indeed, PHMSA identified this process of “new channels cut by floodwaters” as the root cause of many of the ruptures listed by the agency in paragraph 111 above in its warning to Congress. Four of those ruptures, involving pipelines crossing the San Jacinto River in Texas in 1994, occurred “when the San Jacinto River cut through the oxbow” during a flood and exposed previously buried pipelines.⁵⁷ According to the NTSB’s investigation of those spills, examination of the ruptured pipes showed that

their fracture faces included fatigue cracks that had originated from multiple origins. Those pipes were uncovered and their foundations were undermined when the new channel cut through the oxbow. This situation allowed the flood waters to oscillate the unsupported pipelines [*i.e.*, vortex induced vibration] and deflect them southward in the direction of the water flow. These forces caused the pipe walls to bend and buckle, creating fatigue cracks at multiple origins. The fatigue cracks continued to grow, decreasing the effective thickness of the sound pipe wall remaining, until the pipe could no longer contain the internal pressure of the gas or liquid.⁵⁸

121. Ultimately, “[m]ore than 35,000 barrels (1.47 million gallons) of petroleum and petroleum products were released into the [San Jacinto] river,” leading to “explosions and fires erupt[ing] on the river,” with serpentine walls of flame and toxic smoke for miles.⁵⁹

122. It is difficult to overstate the impact on the Band and its treaty-protected rights to steward and utilize its Reservation resources were such an event to take place on the Bad River.

⁵⁶ *Id.* at 40.

⁵⁷ *Id.* at 37.

⁵⁸ *Id.* at 39.

⁵⁹ *Id.* at v and 6. See also <https://www.youtube.com/watch?v=bWEsgM-c2Vk>.

**THE EXPOSURE AND UNDERMINING OF THE PIPELINE IN THE VICINITY OF
A DENOMIE CREEK TRIBUTARY**

123. The circumstances at the Bad River meander are not isolated or anomalous. They instead exemplify the broader reality that the unstable alluvial soils and ever-shifting wetland and riparian environments along Line 5's path render the continued operation of the pipeline on the Reservation untenable. As further evidence of this fact, on August 21, 2019, after the filing of the original Complaint in this action, the Director of the NRD and two of the Band's outside technical consultants made an alarming discovery: a significant segment of pipeline immediately east of one of the major tributaries of Denomie Creek had become wholly exposed, with no covering soil above the pipeline, and no supporting soil beneath it for a considerable portion of its exposed length. The segment is found at a site that Enbridge has designated as a "geohazard" and denominated as "Slope 18."

124. At this location, the south side of the Line 5 right-of-way includes an incised gully with a defined channel that carries flow from a beaver pond located south of the pipeline corridor. The gully runs parallel with Line 5 and has steep and unstable side slopes that are close to vertical in places. The well-defined, continuous channel is located at the bottom of the gully and conveys water flows from east to west into the Denomie Creek tributary. The beaver pond and the channel drain approximately thirty acres of tributary wetland and upland area.

125. On August 21 and over the next several days, intensive efforts in the field by the NRD and its consultants yielded the following observations and conclusions. A forty-nine-foot stretch of pipeline is exposed. Of those forty-nine feet, an approximately forty-two-foot span is unsupported by underlying soil except for three locations along the span with pockets of partially supporting soil that are particularly vulnerable to further erosion. The field observations suggest that a raft of tree roots and soil had slumped into the gully from its south slope, and that this

material had forced the water flow in the gully channel northwards towards the pipeline. This led to erosion of material around and under the pipeline, contributing to its eventual exposure and undermining.

126. A depth-of-cover study conducted by an Enbridge consultant during the summer of 2018 indicated there to be approximately six feet of soil covering the pipeline at that time in the vicinity of the eventual pipeline exposure. All of that soil was eroded away to expose the pipeline, along with the removal of additional soil that had supported the pipeline from underneath.

127. Conservatively, an additional forty feet of pipeline (and potentially more) in the gully remains susceptible to exposure and undermining as a result of further erosion. There exists limited cover over the pipeline along this stretch. A two-year storm event (in other words, a storm event that has a fifty-percent probability of occurring in any given year) could produce sufficient flow in the gully channel to contribute to further erosion and additional pipeline exposure. Moreover, the gully banks exhibit multiple tension cracks evidencing that they are susceptible to further slumping and collapse. The sloughing of additional material into the gully channel could further redirect the flow of water toward the pipeline, exacerbating the process of erosion above, adjacent to, and beneath the pipeline.

128. The NRD and its outside consultants immediately recognized the risk posed by the substantial segment of exposed and unsupported pipeline that they discovered on August 21. Pipelines exposed and unsupported over long spans are subject to stresses they were not designed to withstand, not only from their own weight, but also from the weight of the oil that they carry. They are also highly vulnerable to stresses from shifting soils and debris.

129. The NRD Director left the field at midday on August 21 and notified Enbridge of the discovery. She requested that Enbridge make available personnel to accompany Bad River

staff and consultants back into the field for further investigation that afternoon. Although Enbridge had third-party contractors on the Reservation and in close proximity to the exposed site that day for other pipeline work, the Band received no response to the Director's communication until eight hours later, and that response was perfunctory.

130. On the evening of August 21, alarmed by the company's lack of response and deeply concerned about the exposed and undermined pipeline, Bad River Chairman Mike Wiggins sent an email and letter to Guy Jarvis, Enbridge's Executive Vice President for Liquids Pipelines. Based on the collective judgment of the NRD and its outside technical consultants that an adequate regard for safety warranted cessation of the flow of product through the pipeline, Chairman Wiggins requested that Enbridge immediately halt that flow through the Reservation until the Band and the company could ascertain the full extent of the threat posed by the exposed and unsupported stretch of pipeline. Chairman Wiggins also requested that Enbridge send contractors into the field with the Band to assess the situation firsthand.

131. Mr. Jarvis replied the following morning. Even though Enbridge had not yet sent any personnel into the field, he stated flatly that the exposed pipeline did not present an imminent or emerging safety concern or threat. Mr. Jarvis stated that this conclusion was based on information yielded by Enbridge's automated systems and by its recent technical scans of the pipeline (with no date specified for those scans). This reliance on remote information ran directly counter to one of the cardinal lessons Enbridge professes to have learned from its disastrous Kalamazoo River spill; namely, to avoid an undue reliance on remote information to the exclusion of firsthand observation.

132. In the ensuing days, Enbridge sent personnel into the field, but it refused to shut down the pipeline, even temporarily, while the threat posed by the pipeline exposure and undermining was being assessed.

133. On August 26, the Band asked Enbridge to inform it immediately of its position as to the length of unsupported pipeline that can safely exist at the exposed location, and for the data and calculations supporting that position. The Band further asked that Enbridge provide its position as to the additional length of pipeline that might be susceptible to erosion and undermining at Slope 18. The Band wished to understand the basis for Enbridge's confidence that the pipeline could remain safely in operation. The Band has also asked repeatedly for the technical scans of the pipeline referenced by Mr. Jarvis in his letter of August 22.

134. Enbridge did not supply any of the requested information to the Band until September 17. On that day, it transmitted a summary work sheet stating that the pipeline can have an unsupported span of up to 53.6 continuous feet before the longitudinal stress on it exceeds what Enbridge considers to be allowable levels. Enbridge also reported, without any supporting calculations or explanation, that it would take a one-in-ten-year rainfall event to cause additional exposure of the pipeline. Enbridge has not provided any further substantiation of that position. And it has yet to provide the Band with the technical scans of the pipeline that it has relied on in its professions of confidence as to the pipeline's continued integrity.

135. The very next day, on September 18, the NRD issued a Temporary Emergency Permit under Section 323.22 of its Wetland and Watercourse Protection Ordinance ("WWPO") to authorize the placement of sandbags under the unsupported stretch of pipeline in order to provide temporary support. The NRD was alarmed that Enbridge's own calculation of the maximum allowable unsupported span was only eleven feet longer than the present unsupported span and

only approximately five feet longer than the length of the exposed pipeline. Based on its own analysis and that of its expert consultants, the NRD was not willing to place the same faith as Enbridge in the small pockets of partially supporting soil along the approximately forty-two-foot span of largely unsupported pipeline, as those pockets are particularly vulnerable to being eroded away. And, again based on its own analysis as well as that of its expert consultants, the NRD was far less sanguine than Enbridge about the possibility that some or all of the additional forty-foot stretch of pipeline might become exposed and undermined. The NRD followed up its emergency permit with the grant of an after-the-fact permit under the WWPO on September 20.

136. The Band and Enbridge agree that the sandbags are only a temporary measure to guard against the threat of pipeline rupture at Slope 18. Enbridge has presented preliminary plans for what it considers to be more permanent measures to address that threat. The NRD has provided detailed comments both from it and from its expert consultants on those plans. Those comments raise significant concerns about the feasibility of Enbridge's preliminary proposal. Enbridge has yet to respond to those concerns or to present a more detailed and refined plan.

137. Prior to the commencement of this litigation, Enbridge repeatedly acknowledged and respected the Band's regulatory authority over the pipeline across the Reservation, pursuant to the Band's environmental ordinances. In communications since the exposure of the pipeline at Slope 18 was discovered, Enbridge has denied the existence of such authority, at least with respect to those locations where the pipeline crosses property owned in fee simple by non-Band members, and regardless of the consequences that a rupture of or spill from the pipeline would have on Reservation lands, wetlands, and waterways. Enbridge does acknowledge the Band's regulatory authority under the Clean Water Act, but denies that Clean Water Act jurisdiction exists with respect to the gully channel where the pipeline is now exposed and undermined.

138. Enbridge continues to pump up to 540,000 barrels (approximately twenty-three million gallons) of crude oil and natural gas liquids through the Reservation on a daily basis.

COUNT 1: Public Nuisance – Federal Law

139. The Band incorporates herein all of the above allegations.

140. As a result of bank erosion accelerated by the river's frequent high flows and its local geomorphology, the Bad River is encroaching on and will soon reach the Line 5 pipeline to the east of where the pipeline is presently buried under the river. When this happens, the river will strip the pipeline of its supporting soils and expose it to river flows and an array of other stresses that it was never designed to withstand. The river is also threatening to cut a new channel such that it would flow directly across the pipeline, again exposing the pipeline to the Bad River's flows and other significant stresses.

141. These circumstances are well known and documented to present a high risk of pipeline rupture.

142. The pipeline exposure and undermining in the vicinity of the Denomie Creek tributary, and the potential for further exposure and undermining, likewise present a significant risk of pipeline rupture.

143. Enbridge's continued use of Line 5 to transmit crude oil and other hazardous liquids across the Bad River Reservation under these circumstances presents a grave threat of a rupture, which would unreasonably interfere with the treaty-protected rights of the Band and its members to fish, hunt, and gather wild rice and to control the use of their lands in order to protect the public health, safety, and welfare.

144. Enbridge is accordingly engaged in a public nuisance on the Band's Reservation that threatens uniquely federal interests.

145. The sole remedy of legal damages is inadequate and the Band has no adequate remedy at law.

COUNT 2: Public Nuisance – Wisconsin Law

146. The Band incorporates herein all of the above allegations.

147. As a result of bank erosion accelerated by the river's frequent high flows and its local geomorphology, the Bad River is encroaching on and will soon reach the Line 5 pipeline to the east of where the pipeline is presently buried under the river. When this happens the river will strip the pipeline of its supporting soils and expose it to the river flows and an array of other stresses that it was never designed to withstand. The river is also threatening to cut a new channel such that it would flow directly across the pipeline, again exposing the pipeline to the Bad River's flows and to other significant stresses.

148. These circumstances are well known and documented to present a high risk of pipeline rupture.

149. The pipeline exposure and undermining in the vicinity of the Denomie Creek tributary, and the potential for further exposure and undermining, likewise present a significant risk of pipeline rupture.

150. Enbridge's continued use of Line 5 to transmit crude oil and other hazardous liquids across the Bad River Reservation under these circumstances presents a grave threat of a rupture, which would unreasonably interfere with the treaty-protected rights of the Band and its members to fish, hunt, and gather wild rice and to control the use of their lands in order to protect the public health, safety, and welfare.

151. Enbridge is accordingly engaged in a public nuisance on the Band's Reservation.

COUNT 3: Trespass – Federal Law

152. The Band incorporates herein all of the above allegations.

153. Enbridge continues to transmit crude oil and other hazardous liquids across parcels (identified above) on the Bad River Reservation for which no valid easement exists and in which the Band has ownership interests.

154. Enbridge has failed to remove the pipeline from the aforementioned parcels despite having a lawful duty to do so under the 1993 easements and pursuant to federal statutes and regulations governing rights-of-way on Indian lands.

155. The Band has expressly disclaimed any consent to Enbridge's actions and omissions and has instead insisted that the company cease the flow of oil and remove the pipeline from the Reservation.

156. No other lawful basis exists for Enbridge's continued use of the aforementioned parcels to transmit crude oil and other hazardous liquids across the Reservation.

157. Enbridge is accordingly committing an intentional, ongoing trespass on the Band's Reservation under federal law.

158. The sole remedy of legal damages is inadequate and the Band has no adequate remedy at law.

COUNT 4: Ejectment – Federal Law

159. The Band incorporates herein all of the above allegations.

160. The Band holds valid and lawful ownership interest in eleven parcels (identified above) on the Bad River Reservation for which pipeline easements granted to Enbridge in 1993 have expired, and across and through which Enbridge continues to maintain the presence of the

pipeline and transport up to twenty-three million gallons of crude oil and natural gas liquids per day.

161. By virtue of its valid and lawful ownership interests, the Band is entitled under law to physical possession of the parcels, including those portions presently occupied by the pipeline and by the crude oil and natural gas liquids that pass through it.

162. Enbridge lacks any and all lawful right to maintain and operate its pipeline on those parcels or otherwise to possess those parcels in any way.

163. Enbridge's maintenance and operation of the pipeline on those parcels constitutes the wrongful use and possession of them and operates to withhold rightful possession from the Band. Enbridge continues to use and possess the expired parcels despite notice and knowledge that it has no permission or legal right to be there, and despite a demand from the Band that it leave.

COUNT 5: Band Regulatory Authority – Federal Law

164. The Band incorporates herein all of the above allegations.

165. The Band has the sovereign power to exclude nonmembers from lands on the Bad River Reservation held in trust by the United States for the benefit of the Band and its members, and as an incident of its sovereign authority can regulate nonmember activities on those lands.

166. Enbridge has entered consensual contractual relationships with the Band and its members to operate Line 5 on Reservation lands, some of which agreements have expired. The Band possesses regulatory authority over activities with a nexus to those agreements.

167. The circumstances surrounding the present location and routing of Line 5 across the Bad River Reservation directly affect and threaten the political integrity, the economic security, and the health and welfare of the Band and its members. In treaties entered with the United States

between 1836 and 1854, the Band reserved the right to fish, hunt, and gather both within the Reservation and in and on the waters and lands ceded to the United States. The Band has stewarded the natural resources within the Bad River watershed for centuries, and those resources, including the fisheries in the watershed rivers and Lake Superior, the wild rice stands in the Kakagon and Bad River sloughs, and numerous additional species of flora and fauna, continue to lie at the heart of tribal subsistence, culture, and economy today.

168. A release of crude oil or natural gas liquids from Line 5 on the Reservation, and specifically at the Bad River meander or in the vicinity of the Denomie Creek tributary, would threaten catastrophic harm to the resources that underpin the Band's exercise of its treaty rights and its very way of life. This would in turn imperil the subsistence and the economic security of the Band and its members, as the Tribal Community depends heavily on the responsible use of the fisheries, wild rice, mammals, and other natural resources found on the Reservation.

169. A release of crude oil or natural gas liquids from Line 5 on the Reservation, and specifically at the Bad River meander or in the vicinity of the Denomie Creek tributary, would likewise imperil the political integrity of the Band, which has made it a paramount governmental priority to safeguard the natural resources that are central to the Band's political existence and its members' way of life.

170. Under federal law, the Band's inherent sovereign authority accordingly extends to the siting and operation of the pipeline across Reservation lands, including specifically to its siting and operation in areas of acute geographic sensitivity including the Bad River meander and in the vicinity of the Denomie Creek tributary. The Band's regulatory authority applies to the question whether the pipeline can appropriately and safely continue to be sited at those locations. It likewise applies to proposals to alter the geology and hydrology at those locations in order to allow for the

pipeline to continue to be sited there, both because such alterations in hydrology and geology implicate the core interests of the Band and its members in Reservation lands and in the responsible stewardship of Reservation resources, and because the implementation of flawed or inadequate measures could result in pipeline spills or ruptures likewise threatening catastrophic harm to the rights of the Band and its members.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court:

- A. Enter a declaratory judgment in favor of Plaintiff that Defendants' actions and omissions as set forth in this First Amended Complaint constitute a public nuisance under federal law;
- B. Enter a declaratory judgment in favor of Plaintiff that Defendants' actions and omissions as set forth in this First Amended Complaint constitute a public nuisance under Wisconsin law;
- C. Enter a declaratory judgment in favor of Plaintiff that Defendants' actions and omissions as set forth in this First Amended Complaint constitute a continuing trespass under federal law;
- D. Enter an order ejecting Defendants' pipeline and the crude oil and natural gas liquids that flow through it from the Reservation parcels with expired easements;
- E. Enter an order enjoining Defendants from further use of Line 5 for the transmission of crude oil and natural gas liquids across the Reservation;
- F. Enter an order enjoining Defendants to remove Line 5 from the Reservation in a manner both prompt and protective of the lands and waters of the Reservation and of the ownership, possessory, and use rights of Plaintiff and its members in those lands and waters;
- G. Enter a declaratory judgment in favor of Plaintiff that the continued siting and operation of the pipeline across the Reservation, as well as proposals to alter the geology and hydrology of the Reservation in order to allow for that continued siting and operation, are subject to the Band's regulatory authority;
- H. Enter an order granting Plaintiff its costs and actual attorneys' fees; and
- I. Grant such other relief as the Court deems just under the circumstances.

Dated this 15th Day of October, 2019

Respectfully Submitted,

Erick Arnold
BAD RIVER BAND OF THE
LAKE SUPERIOR TRIBE OF CHIPPEWA
INDIANS OF THE BAD RIVER RESERVATION
72682 Maple Street
Odanah, Wisconsin 54861
Telephone: (715) 682-7107
attorney@badriver-nsn.gov

Oday Salim
NATIONAL WILDLIFE FEDERATION
231 West Liberty Street, Suite 200
Ann Arbor, Michigan 48104
Telephone: (586) 255-8857
salimo@nwf.org

Bruce Wallace
HOOPER HATHAWAY PRICE BEUCHE &
WALLACE
126 South Main Street
Ann Arbor, Michigan 48104
Telephone: (734) 662-4426
bwallace@hooperhathaway.com

By: /s/ Riyaz A. Kanji
Riyaz A. Kanji
David A. Giampetroni
KANJI & KATZEN, P.L.L.C.
303 Detroit Street, Suite 400
Ann Arbor, Michigan 48104
Telephone: (734) 769-5400
rkanji@kanjikatzen.com
dgiampetroni@kanjikatzen.com

Cory J. Albright
Jane G. Steadman
Philip H. Tinker
KANJI & KATZEN, P.L.L.C.
401 2nd Avenue South, Suite 700
Seattle, Washington 98104
Telephone: (206) 344-8100
calbright@kanjikatzen.com
jsteadman@kanjikatzen.com
ptinker@kanjikatzen.com

*Counsel for the Bad River Band
of the Lake Superior Tribe of Chippewa Indians
of the Bad River Reservation*